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The United States security policy in the tripolar nuclear power system : how China's attainment of mutual assured destruction (MAD) capability would affect the U.S. security policy.

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THE UNITED STATES SECURITY POLICY
IN THE TRIPOLAR NUCLEAR POWER SYSTEM:
HOW CHINA'S ATTAINMENT OF MUTUAL
ASSURED DESTRUCTION (MAD) CAPABILITY
WOULD AFFECT THE U.S. SECURITY POLICY

A Thesis Presented

by

MAKI TAGAYA

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M.T.

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CHAPTER I

INTRODUCTION

Nuclear arms have become an inescapable element of the human condition in the past forty years. Currently the United States and the Soviet Union possess nuclear bombs enough to annihilate all mankind. Finding ways to mitigate the danger of nuclear wars and to secure a less threatening future is the most urgent issue in the field of international relations as well as in United States security policy making.

The current nuclear peace occurs in a bipolar system where both of the leading powers, the United States and the Soviet Union, possess arsenals permitting each to inflict so much damage on the other even in a second strike that they have a strong interest in avoiding war. This condition of Mutual Assured Destruction (MAD) has also helped prevent large scale conventional conflicts between the superpowers since both fear any such conflict would escalate to nuclear exchange.¹

One great danger to the current nuclear balance would be the emergence of a third nuclear power possessing enough nuclear capability that each current superpower has to consider not only the presence of the

other but also that of the third when determining its security policy. Judging from present nuclear capability, overall resources, and foreign policy goals, the most likely candidate for the role of third nuclear superpower in the future is the People's Republic of China.² The United States has to be prepared for a situation in which China strengthens its nuclear power to the point that it also acquires second strike capability.

This Master's thesis will examine the following question: how would China's attainment of Mutual Assured Destruction capability affect the security of the United States? The fields of United States security policy which will be examined are: deterrence, war fighting, and arms control. I will examine how a change from bipolarity to tripolarity on the system level would affect the achievement of the United States's nuclear policy goals, and where necessary, how United States strategy should be altered to achieve those goals.

Since the actual implication of Chinese second strike capability depends on China's foreign policy, the main question will be investigated separately in three possible scenarios. The first assumes that China stays neutral between the current superpowers. With China being an independent power, this forms an equilateral

triangular power system. The second scenario assumes a Sino-American alliance, and the third, a Sino-Soviet alliance. In both of these, two points of the triangle lie closer to each other and third is relatively isolated.

In addition to the above alliance systems among the three actors, I am aware that there is one more possible case: a Soviet-American alliance. However, I purposely dropped this scenario. This is because, judging from the present hostility between them, it is highly unlikely that the United States and the Soviet Union would form an alliance against the third party. Hence, all of my scenarios premise continued strong antagonism between the two nations.

To further simplify the three scenarios I assume that China has a consistent foreign policy toward both current superpowers, and the United States does not have to worry about unpredictability of China's action when it makes its nuclear policy.

In the conclusion I will investigate whether a tripolar nuclear system would be more stable than a bipolar nuclear system. As the following examinations indicate, the answer to the above question depends heavily on actor alignments.

CHAPTER II

SCENARIO I: NONALIGNED CHINA

This scenario assumes, as other two, an international system among the three actors whose power is roughly equal. I assume that the antagonism between the United States and the Soviet Union still exists, and China's attitude to both is neutral. Here, the United States has to deal with the relation with the Soviet Union, but it also has to take account of China; China will be a net gainer if the other two fight and thereby weaken each other.

A. Deterrence

A tripolar system where China stays neutral will stabilize deterrence between the United States and the Soviet Union. Unlike in the bipolar system, one party's loss is no longer a direct gain for the other. The presence of the third independent actor will complicate the remaining two nations' calculation of gains and losses. This greater uncertainty will force them to act more cautiously. This, in turn, stems from the fact that all superpowers wish to avoid a situation in which any one of them would be able to dominate the other two.

1. Basic Deterrence

The basic deterrence for the United States would be further stabilized in this tripolar system. The tripolarity would give the Soviet Union as well as the United States less incentive to attack the other. There are two reasons for this. First of all, the realization of Mutual Assured Destruction between the United States and the Soviet Union would be even more horrifying in the tripolar system. Secondly, the potential gain which each party would acquire by attacking first, even if it escapes retaliation, would be less in the tripolarity. Thus in this tripolar system potential gains and losses as a result of action would change in an unfavorable way for the aggressor. I will examine these reasonings in more detail in the following paragraphs.

Even now fear that the United States will retaliate and inflict unacceptable damage on the Soviet Union in response to a first strike deters the Soviet Union from attacking the United States; after exchanging their nuclear weapons, both nations will be much worse off than they are before. Even if their attack is limited to destruction of each other's nuclear arsenals, creating casualties of a certain percentage of its population, they would be certainly weakened. However, it might be still possible for them to remain as the two

most powerful nations in the world. As long as the nuclear exchange is limited to a certain degree, they do not have to worry too much that the international system will be dominated by a hegemonic power afterwards.

After a Soviet-American nuclear exchange in the tripolar system, however, not only the two would be seriously weakened, but also their relative decline will be an automatic gain for China. As long as China stays neutral and does not allow itself to be involved in the nuclear fight between the others, it would emerge as a stronger power over the other two powers after the fight. Thus, even limited nuclear exchange in the tripolar system would have more serious implications than in the bipolar system: the possibility of becoming subordinated to the third party.

The second reason I assume that the Soviet Union would be further deterred from aggression in this system is that this tripolar system brings reduced profit even if Soviet Union succeeds in escaping severe retaliation. Credibility of capability and of will to retaliate are the twin pillars of deterrence. However, even if the opponent sees absolutely no credibility in your retaliatory capability or will, it does not mean he will immediately attack. Attack also requires a positive motivation; the opponent must perceive a gain

that can be acquired only by attacking. Before deciding to attack, a state has to make a political calculation of "what gains and what losses would result, for the state which is the object of deterrence, from action on the one hand, or abstention on the other?"³

Thus even if the Soviet Union should believe that the United States will not retaliate in response to the Soviet attack in fear of its counter-retaliation or that the Soviet Union can win the fight, the gain for the Soviet Union by attacking is considerably less in the tripolar system. In the bipolar system there are only two principal actors; getting rid of the other automatically confers dominance on oneself. On the other hand even if the Soviet Union manages to wipe out the United States in this tripolar system, there is no guarantee that it can automatically dominate the international system. Even after extinguishing the United States there still would be one more actor, China, which the Soviet Union has to worry about in the new bipolar system. Even though China is a neutral nation toward the United States-Soviet hostilities, it does not mean that the Soviet Union can coexist with China in a new bipolar system after getting rid of the United States from the international system.⁴

All of the above conditions would apply equally to the United States or China if either became an aggressor. Compared to the bipolar system, attacking the homeland of any other superpower would bring the same losses from retaliation. Yet even if retaliation were weak or not forthcoming, aggression would bring less profit in this tripolar system. As a result mutual deterrence should be enhanced in this power system; the system would provide the potential aggressor too little gain and too much cost, whether he wins or loses the game. Hence, even when it has a chance, the aggressor would be discouraged from taking the opportunity; the rational calculation would conclude that the gain would not worth the cost involved and it is better to coexist with the enemy than try to attack it.

At first glance, there seems to be one situation in which a country might be encouraged to strike first in this system. This involves a limited nuclear exchange. The Soviet Union might assume that in case of a limited initial attack, the United States would be more inclined to accept the damage and agree to negotiate due to the presence of the third actor. The rationale behind this assumption is that the United States, having received, for instance, a Soviet attack limited to 60% of its land-based missiles, would fear using up a significant

part of its remaining arsenal to retaliate the Soviet Union. On the one hand the United States would want to strike back the Soviet Union. On the other hand doing so would leave the United States quite vulnerable against China. Even though China is a neutral nation it would be dangerous for the United States not to have enough capability to deter it. Thus the Soviet Union might conclude that the United States retaliation is less credible in the tripolar system. If this is the case, deterrence will be destabilized.

However, even if the Soviet Union believes in decreased American credibility, I assume that the decreased potential profit and increased loss by resorting to aggression would outweigh the likely benefit from the United States's possible decision to refrain from retaliation. Moreover, even in event of a limited first strike, the Soviets could not be certain that the United States would not strike back. The United States might calculate that the Soviets would refrain from counter-retaliation in the same kind of fear that escalation would leave the Soviet Union vulnerable to China.

To sum up, by and large it would be less likely in this tripolar system that the Soviet Union strikes first compared to in the bipolar system, and it would be

easier to achieve deterrence. The United States should maintain its present nuclear capability to deter the Soviet Union. It should also make efforts to avoid encouraging the Soviet Union to believe that it will rather negotiate than retaliate after being attacked.

2. Extended Deterrence

As in the case of basic deterrence, extended deterrence will be more stable in the tripolar system for the same reason I mentioned above: the potential gain from attacking is less in the presence of the third superpower. In order to consider the case of extended deterrence against the Soviet nuclear attack, let us assume that an intensive conflict which involves conventional weapons takes place in Europe. At the height of such a conflict, the Soviet Union would have to consider the United States's likely response and the presence of China before it decides whether to launch nuclear missiles at British and French missile silos. Two likely scenarios in terms of an American response would cross the Soviet strategists' minds even in case of a limited counter-force strike.

First, fearing to risk the security of its own nation, in other words, fearing counter-retaliation from the Soviet Union, the United States might decide not to

retaliate and agrees to negotiate with the Soviets. Alternatively, the United States might decide to resort to a retaliation, inflicting a counter-force second strike against Warsaw Pact nations. This would destroy the Pact's conventional military bases, and victimize some civilian populations.

In this tripolar scenario the Soviets would more likely refrain from attack, thinking that the United States would be more inclined to retaliate. This is because the United States would likely think that there is a less possibility that their retaliation would be followed by a Soviet counter-retaliation. In this scenario after the United States retaliates against the initial Soviet aggression, the burden of war escalation would be on the Soviet side. The Soviets would have two choices after the American retaliation. First is a counter-retaliation, bombing the remaining NATO bases. In this case war would very likely escalate to the extent of counter-value attack or worse, even of nuclear exchange between the superpowers' homelands. The second choice is to refrain from counter-retaliation and negotiate with the United States out of the fear that war would escalate to counter-value attack or to homeland-to-homeland attack. In this tripolar scenario the United States would have a good reason to believe

that the Soviets would be more reluctant to escalate war and refrain from counter-retaliation. Unlike in a bipolar system the Soviet Union would have to take the presence of China into consideration. Occupation of NATO would be meaningless for the Soviet Union if it becomes so weakened in the process of the war that China could easily attack and defeat it.

Moreover, even if the Soviets think that the United States would not retaliate, what the Soviet Union would gain by attacking Europe is less in the tripolar system. With the presence of the third power, the United States's loss of a part of Europe would not automatically transfer to the Soviet's gain. The Soviet Union would gain power relatively to the United States, but it would not lead to the situation where the augmented Soviet Union totally topples the balance of the international system. Here, the third actor, China would play a role of cushion. Moreover, the Soviets can foresee the Soviet gain of power will make China uneasy, and likely cause a conflict between China and itself. It might even encourage China to ally with the United States against the Soviet Union. Thus, there is less advantage for the Soviet in striking Europe in the tripolar system.

Moreover, the horrifying outcome of the second scenario would further discourage the Soviet aggression. As examined in the section of basic deterrence, Mutual Assured Destruction or even limited attack against each other's homeland would bring a worse result to the both superpowers in the tripolar system than in the bipolar system. Starting with Europe, the two nations bomb each other and end up with being under the dominance of China.

Even if the Soviets know that the net gain for aggression would be less in the tripolar system than in the bipolar system, it still might decide to attack Europe if it can be fairly certain that the United States will definitely refrain from retaliation. This might occur if tripolarity eroded United States will to retaliate because of worry about China.

Retaliation against an enemy's attack on allies is always accompanied by the possibility that the enemy will then counter-retaliate against the homeland. In the bipolar system, however, it is only the Soviet Union which the United States has to worry about. Retaliation might invite counter-retaliation and inflict damage in the American homeland, but the only enemy which the United States is confronting would be also considerably weakened by the retaliation. In the tripolar system,

the United States would have to take the presence of China to consideration before it decides to retaliate. The retaliation would require the United States to use its weapons for the sake of its allies, and the United States would have to expose its homeland and military force against the Soviet attack in case of escalation. This would make the United States quite vulnerable to China, which would retain its nuclear forces intact even after the United States consumed a substantial amount of its force. Since it would be the United States's interest to deter the China's attack against its homeland even while its allies are in trouble, this tripolar system might diminish the United States's resolution to retaliate against the Soviet attack against its allies, thereby weakening extended deterrence. The United States might regard keeping the nuclear balance among three principal actors in the system as more important than protecting particular allies.

As mentioned above, however, I still believe that discouragement due to the reduction of likely gain would outweigh the Soviet's stimulus to attack based on the increased chance of the United States non-retaliation. Even if the Soviet Union succeeds in acquiring a part of Europe, this would not entitle the Soviet Union to gain

a relative power significantly on its hand and become a hegemonic power. It would still have to cope with China. This decreased gain by attacking is easily perceivable in this system. Next, the United States might appear less determined to retaliate the Soviet aggression in this system, but there would still be a great uncertainty about whether the United States would fight back or not. With this certainly diminished gain by attacking and still uncertain American response, it would be a too much risk for the Soviet Union to strike the American ally.

I have been using NATO nations as examples of an object of extended deterrence. The same logic explaining the enhanced extended deterrence in NATO would also apply to the case of Japan. A Soviet attack against Japan would be conventional. Even if the combat is limited to conventional means, weakening of its force due to the war with the United States would be risky, considering the presence of China. Moreover, the fear that any conventional war could escalate to nuclear war which would make the Soviet Union further vulnerable to China would deter the Soviet aggression against Japan.

Besides, considering the geographical proximity of Japan to China, it would be even more unlikely that the Soviet Union resorts to aggression against Japan than

against Europe. Attacking Japan would unavoidably threaten and hence provoke China. The Soviet presence in Japan would be perceived as a more significant threat by China than its presence in Europe. Thus the Soviet attempt to attack Japan would be more discouraged by the presence of China than in the bipolar system.

Credibility of will to retaliate depends on the nature of the stakes. In order for the United States to look credible to retaliate, it is even more important than in the bipolar system that the United States strengthens the tie and coherence with its allies so that the Soviet Union believes the United States places great value on Europe and Japan.⁵

3. Crisis Stability

It should be easier to achieve crisis stability in a tripolar system of equidistant alignments. The Soviet Union has less reason to fear that the United States will launch a missile in an intensive crisis. The Soviet Union would have less gain in attacking first, so would the United States. The Soviet Union would be more firmly convinced that the United States would refrain from striking first in the tripolar system.

The fear that the other party will strike first is based on the assumption that the opponent's first strike

will destroy much of its own capability to retaliate. The Soviet Union would suppose that the United States would be further restrained from the first strike in the tripolar system, since the incentives to fight is low in that system. The Soviet's assumption would be that even if the United States were to strike first and win the fight, this would not make the United States the hegemonic power in the international system. It still would have to share the ruling role with China and the loss of the Soviet Union would most likely cause a severe conflict with China.

Thus the tripolar system gives a greater crisis stability effect among the actors than the bipolar system. However, there would be one potential threat to crisis stability inherent in this system: a catalytic war. Since any war between the current superpowers would be China's gain, China might be attempted to attack either state, disguising it is an attack by the other current superpower in hopes of leading the two states to fight each other until both suffered considerable damage. Such a concern was actually expressed seriously in the current bipolar system by the Soviet leaders.⁶

Conditions where the superpowers might be dragged into a nuclear war by the third party are identified by Henry S. Rowen. These conditions are:

1. The third party has nuclear weapons and a delivery capability;
2. The third party has a motive or causes; and
3. The superpowers' forces, intelligence, and mindsets are susceptible to being triggered by such an attack.⁷

In the tripolar system the first condition is fully met, and nonaligned China in this tripolar system is more likely to meet the second condition. If the other two superpowers became involved in a nuclear war by one way or another, both nations would be definitely worse off than before. The relative gain of power accruing to China might be sufficient to make it the dominant power, without engaging in any war with either the Soviet Union or the United States. Rowen further identifies special conditions to catalyze a war after the United States or the Soviet Union were attacked:

1. high political tension between the United States and the USSR;
2. forces on high alert status;
3. intelligence and warning systems unable to discriminate between attack by another superpower and attack by the third party;
4. at least one of the "target" superpowers has a "hair-trigger" nuclear launch policy.⁸

To discourage a catalytic attack from China and also to avoid being dragged into such a tragic and unnecessary fight, two steps would have to be taken by both the United States and the Soviet Union. First, it would be necessary to increase their intelligence performance so that they could accurately identify the source of attack even in the height of tension. Although it would be very difficult against sea-launched ballistic missiles (SLBMs), the Soviet Union and the United States should make efforts against land-based intercontinental ballistic missiles (ICBMs). The known ability of both states to identify where a land-based attack came from would discourage China's ambition to make the other two start fighting. Second, both nations would need to exercise careful control over launching weapons. This involves, first, avoiding a general launch-on-warning policy. It also involves imposing controls to ensure that missiles are launched only when authorized.

B. War Fighting

The United States would probably find this tripolar system more favorable for achieving its war fighting policy goals than a bipolar system. As long as there is a third actor in the system who can very likely become the dominant military power in the international system

after the other two fight, the United States and the Soviet Union would be encouraged to act very prudently even after an initial battle takes place. Their common interest in avoiding the consequence of China emerging as a hegemon able to dominate the other two would impose some moderation even in warfare.

In the bipolar system "[F]irst and foremost, the Soviet leadership fears defeat, not the suffering of damage---".³ This tendency would likely be modified in this tripolar system; even if it avoids defeat, the Soviet Union would have to fear the suffering of extensive damage in the tripolarity system, since it would want to maintain the capability to function as a nation to deal with China after the war. This shift of the Soviet emphasis would in turn make the achievement of the United States war-fighting goals easier; it takes two parties to limit the intensity of war. Both the United States and the Soviet Union would want to limit the scale of war so that they could still remain as principal actors in the system after war.

Since direct resort to nuclear war is unlikely, this section assumes that an American-Soviet nuclear war starts in a limited way as a result of escalation from the conventional warfare.

1. War Winning

In the tripolar system the war-winning goal and methods to achieve it would be preserved in pretty much the same way as in the bipolar system. However, its relative priority would likely be ranked among other goals in a different way. Damage limitation, war termination, and escalation control would gain in relative importance compared to war winning. War winning would not be useful unless the winner retained sufficient capability to cope with China after the war. While the United States is engaged in war with the Soviet Union, it would always have to keep it in its mind that China would be there intact.

2. War Termination

Early war termination would be even more important in the tripolar system than in the bipolar system. A different expectation would exist for war termination in the tripolar system, however, compared to in the bipolar system. In the bipolar system what the both nations wish is to terminate war at least before catastrophic holocaust. In the tripolar system they would have to terminate war at a much earlier stage, before China becomes able to dominate the two nations damaged by nuclear exchange.

In the bipolar system even if the United States emerges with its military capability severely reduced and its economic, industrial sectors seriously damaged after the war, it does not have to worry too much about another power attempting to take advantage of the situation. In the tripolar system, however, the United States would have to consider the possible aggression by the third power, China. After terminating war with the Soviet Union, the United States would still have to be powerful enough to deter China's attack. In the following I will examine how the United States strategy should be altered to achieve its war-fighting policy goals in the tripolar system.

War termination requires mutual agreement at least to a cease-fire, which, in turn, means that two nations have to be able to communicate with each other. Invulnerable, reliable communication systems between the United States and the Soviet Union are an essential prerequisite for war termination. At present two nations are depending on the "hot line" to communicate between White House and Kremlin which is quite vulnerable to nuclear attack. This fragile communication system which would be destroyed even by a limited attack on each capital is criticized even in the status quo.¹⁰ In the tripolar system where the United

States and the Soviet Union have a greater incentive to negotiate after nuclear war breaks out, it is indispensable for the United States with a joint effort with the Soviet Union to build survivable and effective communication links.

Secondly, there should be a considerable shift in the United States targeting on the Soviet Union. In the current plans the Soviet Union's C³I facilities are listed as a relatively early target¹¹ in an expectation that less retaliation would occur if Soviet command and communications systems were disrupted. The assumptions behind this are that once nuclear war starts, disrupting the Soviet command system at least has a possibility to limit damage on the United States, since it will cause enough chaos in the political and military sectors to deny political leaders control of their forces and thus decrease scale of its attack.¹²

Even in a bipolar system this assumption can be questioned. In a tripolar system it becomes even more dangerous. Therefore, the current strategy to include its C³I network as an early target has to be modified. The United States would have greater need to negotiate with the Soviet Union during war in this tripolar system, and its attack on the Soviet communication systems would eliminate the chance for the

political leaders to negotiate with the opponents. Moreover, disruption of the communication systems would make it impossible for the Soviet leaders to issue orders to their armed forces to halt attacks even when they decide to do so. Negotiation to end war would be meaningless unless the order to cease fire can be sent, received, and followed.

Similarly, the United States should not adopt "decapitation" strategies making the Soviet leadership a target. It requires political leaders in the Soviet Union to negotiate and terminate war. Moreover, destroying the Soviet leadership would put the United States in a great risk, by transferring the control of Soviet war fighting from the political leaders to military commanders. At least some of them would likely launch attacks, negating any prospect of war termination.

By the same token it would be the United States's strong interest to make its own C³I network more secure against a possible Soviet attack so that its own political leaders could stay in charge of its command. It takes two parties to communicate; the United States's exempting the Soviet C³I system from attack would be meaningless unless the United States could secure its own system. This aspect is particularly worrisome when

one thinks of the current Soviet nuclear targeting doctrine; the Soviet strategy is to resort to a rapid and massive attack on the United States C³I system to limit damage once nuclear war breaks out.¹³

Currently the United States lags behind the Soviet Union in terms of the C³ survivability and protection of the political and military leadership:

Since the 1950s, the Soviet Union has placed great emphasis on ensuring the survivability during a nuclear exchange of the Soviet leadership.... Shelters have been constructed for about 110,000 members of the leadership, made up of some 5,000 party and government officials at the national and republic level; 63,000 party and government leaders at krai, oblast, city, and urban raion level; 2,000 managers of key installations; and about 40,000 members of civil defense staffs.¹⁴

Moreover, C³I systems are much more dispersed and redundant in the Soviet Union. The United States does not possess this kind of extensive protection measures against its own C³I system. In the tripolar system the increased importance of war-termination goal would require the United States to improve the current vulnerable C³I systems and measures to protect political leaders at least to the extent of the Soviet Union's so that the United States could leave a possibility to negotiate and terminate war.

3. Escalation Control

Escalation control involves influencing the intensity of war. Hence it refers to two kinds of ability. One is ability to choose an appropriate time and rate to escalate war when intensification would yield advantages. The other is ability to prevent war from intensifying when further intensification of war is disadvantageous. The intention behind seeking this latter ability is to "deter escalation and coerce the enemy into negotiating a war termination acceptable to the United States by maintaining our capability to effectively withhold attacks from additional hostage targets highly valued [or] vital to enemy leaders..."¹⁵ Since the United States would wish more strongly to limit damage in this scenario to be able to deal with China afterwards, it would have an increased interest in enhancing this ability of escalation control.

In order to emerge as a powerful enough nation to balance China after a nuclear exchange with the Soviet Union, the United States would have a stronger interest in the goal of escalation control, prevention of war intensification. That the Soviet Union would have a similar interest in limiting damage to itself would make the attainment of this goal easier for the United

States. Combining other war-fighting goals, the United States's interest would be to prevent escalation of war and to terminate nuclear war as soon as possible, which would lead to keep the damage by war at minimum.

To achieve this goal the United States should take two methods. First, to sustain the sophisticated, yet currently vulnerable C³I system in the course of any nuclear exchange. This is vital to controlling escalation, because the C³I system is the eyes and ears for any leadership when it has to execute nuclear attack. Without this function nuclear attack would be that by the blind and deaf, thereby controlling escalation would be impossible. The C³I system would provide the leadership with the ability to control action so that responses would not escalate war unnecessarily; in terms of the timing and pace of attack before it decides to resort to attack; in terms of the kind of attack and target so that the Soviet Union could assess the United States's intentions of the particular nuclear response.¹⁶ Thus C³I system is indispensable for escalation control. Necessity to improve its current vulnerability which was mentioned in the section of war termination should be once again emphasized here for the achievement of escalation control.

Secondly, effective escalation control requires the United States to broaden the range of options in its flexible nuclear response strategy so that it can respond to any level of Soviet attack in an appropriate way. In other words, if the Soviet attack is conventional, the United States should answer the attack by conventional weapons. If the Soviet attack is limited to 10 megaton equivalent warhead against five United States silos, the United States retaliation should be also limited in the equal way. The counter-attack in this case should not be as massive as, for example, 100 megaton attack against 50 Soviet silos, because this would quickly escalate the warfare. Thus the United States should not punish the Soviet aggression more than necessary, but should do in a selective and deliberate fashion. Caution would be even more necessary when the United States decided to retaliate in the tripolar system. The necessary instruments for this purpose are small-scale, accurate, counter-force nuclear weapons.

However, this method to make nuclear force more accurate and effective for counter-force strategies has one disadvantage. Acquisition of a great number of such weapons would seem to the Soviets that the United States is trying to gain first-strike capability. Achievement

of escalation control by deployment of these weapons would have to be traded off to some extent with a consideration of crisis stability achievement.

4. Damage Limitation

The United States would also have an increased interest in damage limitation in the tripolar system; it has to remain powerful enough to face China after it engages in war with the Soviet Union. In order to stay powerful enough to deter China, it is necessary for the United States to minimize the damage of war. For this, on top of early termination of war and escalation control, both strategic and civil defense should be strengthened. Protecting the civilian sectors which would be vital for the nation's recovery after war would be very important.

Particularly with respect to measures of passive defense, the United States has been relatively indifferent compared to the Soviet Union. As Raymond Aron notes:

The fear of escalation in the national defense budgets, without altering the balance of terror, affords one partially rational explanation of the indifference manifested toward measures of passive defense which would be relatively cheap and effective (light shelters against radioactive fallout, stockpiling of the machines and materials most indispensable to reconstruction, evacuation

plans for cities, education of the population, etc.).¹⁷

The fact that the entire population cannot be evacuated does not mean a nation can neglect civil defense altogether. With civil defense, nations increase the chance of survival and decrease the damage to some extent if nuclear war breaks out. The Soviet Union, partly due to its history of frequent foreign invasions, is quite aware of this, and has been engaged in improving its civil defense programs. An example of their extensive plan to evacuate leadership in case of war has been already cited in the section of war termination.

To limit damage and recover as a functional nation the United States should improve the currently insufficient civil defense measures. A program of evacuating urban population in case of crisis, for example, should be seriously considered. Besides, by ensuring that the United States could decrease some human and material loss through civil defense, it could enhance deterrence, since it will make the United States's resolution to retaliate more credible.¹⁸

C. Arms Control

In the tripolar scenario of a neutral China arms control is extremely important, but more difficult than

in the bipolar system. Arms control negotiations are hard even only between the Soviet Union and the United States; adding one more actor who might have a significantly different nuclear doctrine from either of the original superpowers would certainly make arms control much tougher. China would likely continue to follow its current nuclear doctrine. At present the United States tries to deter nuclear attack by Mutual Assured Destruction; the Soviet Union tries to achieve deterrence by enhancing war-fighting capability; China bases deterrence on improving its capability to sustain the damage and to recover after nuclear war.¹⁹

This particular tripolar system would supply the least optimum condition for successful arms control. In the other two tripolar scenarios China would cooperate with its ally, standing on the side of its partner in arms control negotiations to increase alliance security. In this particular scenario, however, China would act totally independently of, and differently from both of other two.

Once nonallied China acquires its second strike capability (even before that), the United States and the Soviet Union should try to include China to arms control talks. Whether they want reduction, freeze or change in

their force structure, trilateral agreement is necessary for the security in the tripolar system.

Chinese attainment of second strike capability would also complicate arms control by forcing changes in existing arsenals. The United States's currently well balanced force structure among ICBMs, SLBMs, and bombers would be maintained in the tripolar system. With a presence of China, however, it would have to increase the number of long-range missiles, particularly that of SLBMs to maintain second strike capability against both other superpowers.

The Soviet Union would have to increase the number of ICBMs targeted on the western part of China, and also acquire some medium-range missiles along the border with China to deter its attack. Like the United States the current force balance would likely to be maintained; strong emphasis on land-based missiles and less on SLBMs due to lack of sufficient ports.

The Chinese force would look like something between those of the United States and the Soviet Union. In terms of its balance among land-based missiles, SLBMs, and bombers, Chinese nuclear arsenals would be closer to that of the United States than the Soviet Union; owing to its relatively long coast and possession of ice-free ports, it would emphasize submarines forces more than

the Soviet Union. On the other hand, since it has to deter the Soviet Union as well as United States, it would need to retain more medium- and short-range missiles than the United States. At present China does not have much interest in deploying a large number of bombers, therefore it is doubtful if it would increase the number of bombers in this tripolar system.²⁰

1. Deterrence

In this scenario the United States would want to establish mutual deterrence with the Soviet Union and with China. The United States knows that China would stay as neutral in case of war with the Soviet Union. As long as nonallied China has a large nuclear arsenal, however, it would be the United States's goal to have enough nuclear capability to deter China. For this the United States should make no agreements inhibiting its ability to strengthen its second strike capability and modify its force structure to deal with China.

If China stays as a neutral nuclear power, the United States could utilize the current nuclear capability to deter China only. However, it would be the United States's interest to prepare for the very worst scenario in this system; deterrence against China fails, and the Soviet Union also decides to strike the

United States. Against this case, the United States would want to deploy weapons to develop its double second strike capability. First the United States would want to have enough weapons to have second strike capability to deter a Soviet's attack. Second, it would want to have enough capability to inflict unacceptable damage on China even after it launches its second strike to the Soviet Union. This would also be in the Soviet's strategy; strikes back against a China's attack and still be able to deter the United States's first strike.

To ensure their double second strike capabilities they would want to change the balance of their force structure to emphasize bombers or SLBMs, or by making land-based ICBMs more invulnerable against a first strike. In this case the Soviet Union's current force structure which more emphasizes the relatively vulnerable land-based missiles²¹ would be altered so that it could strengthen its second strike capabilities.

It has been estimated that unacceptable damage for both the United States and the Soviet Union is 400 megaton equivalent weapons which would destroy 20 to 25 percent of the population and 50 to 67 percent of industrial capacity.²² It would take the same amount of weaponry to inflict unacceptable damage on the Chinese industry. However, both the United States and

the Soviet Union would need probably somewhat more weapons to inflict unacceptable human loss on China, judging from its population which is not only four to five times of that of either the United States or the Soviet Union but also more dispersed. To keep the credible deterrence capability against the worst case, the United States would have to make sure to maintain at least around 1,000 or more megaton equivalent retaliatory power (400 for the Soviet Union, the rest for China) in the arms negotiation table.

2. Crisis Stability

The United States should support measures that improve secure communication networks within and between the nations. Plans to supplement the hot line and establish a crisis center to identify and give information about a developing crisis should be vigorously pursued.²³ These measures are important in the bipolar system, but they would be even more important in this tripolar system. The United States could also try to make an agreement with the Soviet Union not to target each other's C³I systems.

The above measures should also be extended to include China; the trilateral C³I and Washington-Moscow-Beijing "hot line" agreement would be one of the

few shared interests of the three participants at the arms negotiation table.

CHAPTER III

SCENARIO II: SINO-AMERICAN ALLIANCE

This scenario assumes a tripolar system where the United States and China form an alliance against the Soviet Union. The United States-Chinese alliance is based on a mutual security treaty under which the two nations act jointly against the Soviet Union in case of conflict in the international system. Since the United States and China together would have an overwhelmingly favorable nuclear balance against the Soviet Union, this scenario has some resemblance with the era of clear United States nuclear superiority over the Soviet Union between 1945 and 1957.

A. Deterrence

This particular version of the tripolar system has mixed effects on deterrence. Unless the Soviet Union possesses a nuclear arsenal capable of second strike against both the United States and China simultaneously, the Sino-American alliance will be too formidable a power for Soviet Union to challenge. Therefore, it would be much easier for the United States to deter the Soviet aggression. On the other hand, deterrence would be considerably jeopardized from the Soviets' point of

view; the Sino-American alliance might regard its advantage as allowing a first strike.

Judging from the current economic performance of the Soviet Union and other Warsaw Pact countries, it is highly unlikely that they could build up such a large arsenal to keep up with the Sino-American alliance. At present it is estimated that the Soviet Union allocates as much as 17 percent of its gross national product to defense, while the United States allocates 6 percent. This expenditure is placing a heavy burden on the nation's economy.²⁴ As long as the Soviet economy grows slowly, there will be serious constraints on its ability to increase the size of its nuclear arsenal.

Even so, the Soviet situation is not hopeless. The United States and China would be unlikely to attack the Soviet Union even in this scenario. Even in the case of successful United States and Chinese joint first attack against the Soviet Union, the Soviet Union would most likely still possess enough nuclear power to inflict unacceptable damage on both the United States and China.

It has been estimated that what would be considered unacceptable damage for the United States is 20 to 25 percent of population loss and 50 to 65 percent of industry destruction, which would be easily met with the nuclear destructive power of 400 megaton equivalent.²⁵

It is difficult to determine what would be unacceptable damage for China, and how many weapons would be necessary to inflict it by the time China acquires second strike capability. Even today estimating what China would regard as unacceptable damage is a much-debated question.²⁶ How its economy develop, and how industry and population spread over the territory would affect both the definition of unacceptable damage and the number and size of warheads required to achieve it. I would roughly estimate, however, that China, like the United States, would regard loss of 50 to 65 percent of its industrial base as unacceptable. This will definitely be the case after it evolves into an advanced industrial nation which depends largely on various sectors of its industry such as electric power generating capacity, petroleum refining, or iron and steel works.

Secondly, China's unacceptable population loss would be somewhat more than that of the United States. China's population is more than one billion compared to 240 million of the United States²⁷. A 20 to 25 percent population loss for the United States is 48 to 60 million deaths. The same number of deaths would be a far lower portion of China's population. Even a comparable percentage loss, that is, 200 to 250 million,

would not have the same social impact. Moreover, judging from the way this population is spread, it would take more weapons to cause the same number or the same percentage of casualties in China as in the United States or the Soviet Union. Its ratio of city population in the entire population is less than 10 percent compared to United States in the 20 to 30 percent range and the Soviet Union in 30 to 40 percent range.²⁰ Because of these differences I conclude that it would be necessary for the Soviet Union to possess about 600 to 800 megaton equivalent of weapons to impose unacceptable damage on China after receiving the first strike. At present the average yield of Soviet warheads is 0.8 megaton and one launcher carries four warheads in average (4.5 for ICBMs, 3.6 for SLBMs, and 7.6 for bombers.)²¹ If we assume that the Soviet Union continues to have this kind of structure in the tripolar system, it would need 750 to 1,000 warheads and 185 to 250 launchers to yield 600 to 800 megaton equivalents of destructive power.

It would be entirely possible for the Soviet Union to have enough nuclear weapons to launch such an unacceptable second strike against both nations after it absorbs the first strike. At present the Soviet Union has about 8,000 megaton equivalent weapons in total in

about 11,000 warheads and 2,500 launchers.³⁰ In this scenario the Soviet Union might increase it a little, but would never decrease it. Let us suppose the optimistic case, that the Soviet Union only maintains the status quo capability. Even in case of a United States and China joint counter-force attack against the Soviet Union, it is impossible for them to destroy all the Soviet nuclear forces. Assume an extremely optimistic case; the United States and China succeed in destroying 80 percent of land-based ICBMs, 70 percent of SLBMs, and 80 percent of bombers. With the remaining 20 percent of ICBMs (230 launchers and 1,300 warheads), 30 percent of SLBMs (280 launchers and 1,000 warheads), and 20 percent of bombers (30 bombers and 250 warheads), the Soviet Union would still possess about 2,000 megaton equivalent weapons.³¹ This destructive power would be enough to inflict unacceptable retaliation to both the United State and China which require 1,200 megaton equivalent weapons in total at most.

Hence I suppose that the United States and China would still prefer to coexist with the Soviet Union rather than to attack it in this tripolar system; they would consider it still too costly to engage in a nuclear fight with the Soviet Union, sacrificing their own populations and industrial capability. As long as

there exists a possibility that conventional war escalates to nuclear war, the Sino-American ally would be also deterred from conventional attack on the Soviet Union.

1. Basic Deterrence

In this tripolar system it would be easier for the United States to deter a Soviet attack on its homeland. In case of either an all-out attack on the American homeland or a limited attack on the United States strategic bases, the United states would have a credible capability and will to retaliate against the Soviet aggression. In this tripolar system the credibility of the United States's will to retaliate would be further strengthened by its alliance with China. Moreover, the Soviet Union would have to fight a two-front war once it starts nuclear attack. As long as the Soviet Union stays as a rational actor, it would be convinced that it could not escape from unacceptable damage by the alliance's second strike.

It would be a wishful calculation for the United States to think that, splitting the potential damage with China, it would receive only half of the the damage it would receive in the bipolar system. But the United States could rationally assume that the damage would be

less severe than in the bipolar system. Thus, expecting less damage from the Soviet Union, the United States's will to retaliate would be strengthened in this scenario. This also would be the likely Soviets' perception; the United States's will to retaliate would appear more credible in this power system.

Secondly, there would be no question about the credibility of United States capability to retaliate due to its alliance with China. With the effect of increased credibility of the United States's will and capability, the Soviet Union would be further discouraged from attacking. Hence, in this tripolar system it would be easier for the United States to deter the Soviet attack.

Finally, in this scenario, the Soviet Union would have to think about a possibility of fighting against China most seriously when it starts nuclear attack. When China becomes an ally of the United States, the agreement would be likely to be that when one party is attacked, the other will join the battle and support the ally at some point. With such an agreement, there would be no chance for the Soviet Union to emerge as a winner of the fight after it strikes the United States. Even if the Soviet Union should have a chance to wipe out the United States by its attack, it would still have to fight against China afterwards.

Even in the status quo, the Soviet Union fears nuclear exchange with China although China is much a weaker nation in terms of its military capability. According to an analysis by Banning N. Garrett and Bonnie S. Glaser:

The Soviets perceive China, despite its inferiority in military hardware, as having advantage in survivability and protracted war capability.... The Chinese are aware of the Soviets' fear that surviving Chinese population and military forces after a nuclear war would pose a threat to a crippled Soviet Union.³²

In the current bipolar system China is capable of deterring the Soviet nuclear attack from an inferior position. In the tripolar system the Soviets' fear of China would be even stronger due to its increased nuclear arsenal. Hence with the fear of fighting a nuclear war with China, the Soviets' attack against the United States would be further deterred in the Sino-American alliance scenario.

It is hard to imagine in this scenario that the Soviet Union, being in an inferior position, would be tempted to attack the United States or China (apart from a desperate pre-emptive strike). However, suppose the Soviet Union thinks about destroying the United States's ICBMs in an extreme crisis situation. The Soviet

strategists would assume the United States would be more encouraged to retaliate with its remaining mobile missiles and SLBMs than in the bipolar system, out of assurance that China would join the combat or at least that China would not take advantage of new United States weakness.

Just as it would be impossible for the Sino-American alliance to destroy all the Soviet forces in one blow, it would be also impossible for the Soviet Union to destroy all the American forces by its first strike. Currently even a Soviet first strike that destroys 70 percent of ICBMs, 40 to 50 percent of SLBMs, and 70 percent of nonalert bombers, does not deprive the United States of its ability to inflict unacceptable damage on the Soviet Union; at most 400 megaton equivalent weapons, or probably less than that, to cause 20 to 25 percent population loss and 50 to 67 percent industrial capacity damage.³³ This fact would remain the same in this tripolar system.

In any case the United States's retaliation would impose major damage on the Soviet forces. China might aid the United States's action and strike the Soviet Union immediately after the first strike from the Soviet Union. Even if China did not start attacking the Soviet Union at this point, for fear of Soviet counter-

retaliation, China would certainly join the United States and attack the Soviet Union. If war broke out, the Soviet Union would sooner or later have to cope with two nations at the same time.

This would yield a dreadful consequence for the Soviet Union; even after it uses up its counter-force weapons the alliance would still possess considerable number of counter-force arsenals. In case war does not end here and further escalates, it would bring a catastrophic damage to the Soviet Union. Even though the United States and China would receive severe damage, losing a significant portion of their populations, they would still be able to recover from the damage and eventually start functioning as a nation. The Soviet Union, however, would be completely shattered, and would most likely cease to exist as a functional nation.

Even if the Soviet Union decides to attack both the United States and China at the same time, chances are it would receive more serious damage than in a bipolar system. It would be clear to the Soviets that they cannot destroy all the opposing forces but would leave the United States and China with enough second strike capability independently; they would certainly resort to retaliation against the Soviet Union. With its nuclear capacity, the Soviet Union is unable to give the same

degree of damage as what it received to both the United States and China. In either case, unlike in the bipolar system, there is not even a slim chance for the Soviet Union to emerge as a winner in the tripolar system where the United States and China make an alliance. As long as the Soviet Union remains as a rational actor, their calculation would never tempt them to break the deterrence.

2. Extended Deterrence

It would be easier for the United States to achieve extended deterrence against both Soviet nuclear and conventional attack in this tripolar system. When the United States forms an alliance with China, it would increase the United States's credibility of capability and will to retaliate in case Europe or Japan is attacked. In case of Soviet nuclear attack, the United States together with China could bring an unacceptable damage on the Soviet Union. In case of its conventional attack, the Sino-American alliance would most likely emerge as victors against the Soviet Union. In the following, first, I examine the implication of the Sino-American alliance to extended nuclear deterrence, next, to extended conventional deterrence.

To consider the system's implication to extended nuclear deterrence, let us assume a conflict in Europe. Before the Soviets launch an attack on American, British, or French missiles as the conventional fight between the NATO and Warsaw Pact intensifies in Europe, they have to consider what would happen next. In this situation, the United States's choice would be either: 1. to retaliate by attacking Soviet counter-force weapons or selected military targets of the Warsaw Pact, the Soviet Union, or both in a restrained manner, or 2. to accept the Soviet aggression in Europe and agree to negotiate.

In this tripolar system the Soviet Union would have more reasons to believe the United States would choose the first choice. First, there would be no question about the United States's ability to retaliate. It has its full nuclear capability intact at home. Moreover, it could also rely on the Chinese arsenal, if necessary. Secondly, the United States's will to retaliate would appear more credible than in the bipolar system, since the alliance has the ultimate advantage once war escalates.

The likely Soviet response against the American retaliation would also encourage the United States to punish the Soviet Union. Suppose the United States

retaliates against the original Soviet aggression, attacking the Warsaw Pact in a limited way. Two possible Soviet responses to the United States's retaliation are: to accept the damage in Eastern Europe and negotiate due to its fear of escalation, or to counter-retaliate with a full knowledge that it would lead to a further escalated nuclear fight, probably a full-scale nuclear war. In the Sino-American alliance scenario, the Soviet Union would more likely choose the first option, since there would be nothing for them to gain by escalating war. This would in turn encourage the United States to retaliate against the initial Soviet attack.

The reason why the Soviet Union would be more likely to negotiate after receiving the American retaliation in this scenario is that it would fear the escalation of warfare. In the bipolar system the Soviet Union might believe in its relative victory after nuclear exchange even if it would be terribly damaged. In this tripolar system the Soviet Union would not indulge in such an optimism. By the time the fight involves homeland to homeland nuclear exchange between the United States and the Soviet Union, China would certainly join the fight, supporting the United States. Even in the status quo the Soviet Union fears China's

capability in protracted war and recovery after nuclear war, and its possibility to emerge as an eventual victor as cited in the former tripolar scenario. China would be an even more formidable foe for the Soviets if they have to face it after being crippled by the fight with the United States. All these considerations mean that extended nuclear deterrence would be easier for the United States in this diplomatic configuration of the tripolar system.

The implications of the Sino-American alliance for extended conventional deterrence would be also more favorable than those of the bipolar system. The Soviet Union would be further deterred from conventional attack against American allies in this scenario.

First, it is considered that escalation of conventional war is the one of the most likely paths to nuclear war.³⁴ Since the Soviets would be so afraid of nuclear warfare with the Sino-American alliance as mentioned above, it would be extremely cautious about resorting even to conventional attack against NATO or Japan due to the fear of its possible escalation to nuclear war.

Secondly, even without the fear of escalating into the nuclear fight, the Soviet Union would not be likely to resort to conventional attack; it would calculate

there would be a less chance for them to win even a conventional war in this tripolar system, because of formidable Chinese conventional power added to the Western Camp. At present the Soviet Union has 5,226,600 standing forces, while the United States has 2,158,000.³⁵ In this tripolar system the United States would gain roughly another 3,200,000 forces which China has in the status quo.³⁶ Moreover, the Soviet troops and equipment have been criticized for unbalanced emphasis on quantity rather than quality:

...but Moscow's reliance on universal conscription of 18-year-olds means that morale and motivation are lower than in countries with all-volunteer forces, like the U.S. and Britain. In conventional units, the Kremlin has traditionally opted for quantity over quality, relying on large numbers of troops and weapons and deemphasizing battle field initiative and high technology.³⁷

Thus even in the status quo how the Soviet's more numerous, yet less sophisticated troops and weapons would perform in an actual battlefield situation is a question. It is hard to estimate exactly how much and what kind of conventional forces China would develop by the time it acquires the second nuclear strike capability. Currently the quality of Chinese conventional forces is not sophisticated. However, I suppose it would have significantly improved quality of

forces when it acquires the nuclear superpower status. Including its force on the United States's side would definitely shift the conventional balance of power in a favorable way for the United States. Also, China's conventional forces would compensate for the current conventional military inferiority of NATO and Japan with respect to the Warsaw Pact^{3*}, thereby enhancing the Sino-American alliance's extended conventional deterrence.

3. Crisis Stability

It would be more difficult for the United States to achieve crisis stability in this tripolar system than in the bipolar system. This particular international system would unavoidably increase the Soviet Union's fear of the Sino-American alliance's first strike. In case of a crisis the Soviet Union might decide to launch a pre-emptive first strike, not because it thinks it could win, but because it thinks it would receive less damage by attacking first.

Both diplomatic measures and careful arms procurement policies are needed to reduce the likelihood of Soviet pre-emption. On the diplomatic side, neither the United States nor China should provoke the Soviet Union by making it think the two allies are considering

a first-strike. The allies should consistently advocate and commit themselves to support a no first-strike posture. Reducing Soviet fear would also be assisted by an agreement between the Sino-American alliance and the Soviet Union that they would not put their nuclear forces on a high alert position. As for the strategic program, the United States and China should work to reduce the vulnerability of their nuclear forces so that the Soviet Union would not expect that their nuclear capability could be destroyed by a Soviet first strike in this tripolar system.

Secondly, the United States would have to accept some trade-offs between deterrence and crisis stability. Since this system stabilizes deterrence and hinders the maintenance of crisis stability, the United States and China should consider shifting from targeting of Soviet military bases to its economic or industrial sectors. The reduced American counter-force capability would contribute to achieving crisis stability in this scenario, since it would convince the Soviets that there is less threat about the survivability of their retaliatory forces.³⁹ To make the Soviets sure this shift matches the actual announced American policy, the United States should encourage the exchange of verification of each other's silos by photo-reconnaissance satellites and other methods.

B. War Fighting

In this scenario, the possibility that the United States together with China could succeed in destroying the Soviet Union would be higher than in the bipolar system. The Soviet Union would have to fight against two nuclear powers and at any level of the escalation ladder it would have to be able to inflict sufficient damage to both nations to win. This is surely a hard task. Although the United States and China would have ultimate advantage in war fighting, they would still consider all-out nuclear war unacceptable.

The war-winning goal would acquire increased relative importance in this scenario compared to the bipolar system. Once war breaks out, the potential gain in this game is considerably higher than in the bipolar system. The United States together with China could have a relative victory. While pursuing this goal, however, the United States would have to consider what the maximum sacrifice is which it could bear. Relative victory would be possible, but it would be still accompanied by costs. If the United States could defeat the Soviet Union and reduce it to a mere regional power in Europe at relatively low cost while the United States remains as a dominant power, it would be worthwhile to pursue this goal after the war starts. On the other

hand if the cost of victory is 100 million dead and destruction of majority of economic sectors, it would not be worth pursuing this goal. Lastly, the war-termination goal, at least the early termination would lose its importance somewhat. Escalation control, and damage limitation goals would have the same, if not reduced, importance as in the bipolar system.

1. War Winning

In this scenario war winning would be a more realistic goal for the United States to pursue than in the bipolar system. I assume that the United States, even in this scenario with an increased possibility of gain, would behave cautiously in fear of escalating damage to its homeland at least at an early stage of war. If the total price the United States has to pay to make the Soviet Union unfunctional as a nation is, for example, 50 million casualties, it would still make its best efforts not to intensify the war and seek for negotiation rather than aggressively pursue a clear relative victory. Therefore, the United States's likely initial response to the Soviet limited attack would not be an all-out response, but a limited counter-force attack.

After the United States and the Soviet Union exchanged counter-force attacks, China would most likely join the combat, inflicting further damage on the Soviet Union. By the time the Soviet Union exhausts its nuclear weapons the United States and China would still have their nuclear weapons left, thereby threatening the Soviets with more damage. By this time it is likely that the Soviets would agree to negotiate with allies, seeing that escalation would bring no advantage to them. Alternatively, the Soviet Union might initiate a counter-value attack in hopes that it would induce the alliance to be cautious.

If the battle should intensify and the United States and China had to attack Soviet non-hard targets, they should target the remaining main industrial sectors of the Soviet Union. Such damage would mean a slow Soviet recovery. Therefore, a limited attack on these sectors would still possibly lead the Soviet leaders to negotiate with the Sino-American ally, before inflicting massive civilian victims on each side.

There is another strategy which the alliance could pursue for war-winning goal in this system. The Sino-American alliance scenario would provide a more promising environment for a United States-Chinese adoption of a counter-state strategy. This counter-

state attack is a strategy which aims at the Soviet political culture.⁴⁰ The Soviet Union is a nation whose functioning heavily depends on its central authority. The rationale behind the counter-state attack is that such a centralized state should be quite vulnerable to the attack on its central security agency and other bureaucracy that it might cause a total anarchy in the nation. Colin S. Gray argues:

The Soviet Union, like Czarist Russia, knows that it can absorb an enormous amount of punishment (loss of life, industry, productive agricultural land, and even territory), recover, and endure until final victory---provided the essential assents of the state remain intact. The principal assets are the political control structure of the highly centralized CPSU and government bureaucracy....⁴¹

A counter-state attack would have two major effects on the Soviet bloc. First it would weaken the Soviet Union domestically. The Soviet regime is not totally supported by its population apart from the leading minority European Russians.⁴² The destruction of the central political system which has been containing these discontented minority populations could open the way to disintegration of the Soviet society. Second, it would have serious effect in the Eastern Europe. Local nationalisms would be asserted and the bloc break up as

old antagonisms resurfaced. Both the Soviet Union and the bloc, then, would cease to exist as effective political forces.⁴³

A major problem with this counter-state strategy is that it conflicts with strategies to achieve other war-fighting goals. For war termination and escalation control it would be essential that the Soviet hierarchy, and their communication system, remain intact. The elimination of the Soviet leaders is a considerably risky strategy, since it might escalate the Soviet attack on the United States and China by transferring the authority to attack from politicians to military commanders. Therefore, it would not be until the United States gives up the possibility to negotiate with the Soviet Union and decides to accept more possible damage that it would resort to this strategy. It requires two parties to negotiate to terminate war or control escalation; if the Soviet Union does not show respect to the alliance's efforts to achieve these goal, it would be the time for them to consider a counter-state attack.

2. War Termination

Even though the United States would have a stronger incentive to win war, an all-out nuclear war would still require a considerable price to pay. Therefore,

although the United States might not be as eager to pursue this goal as in the scenario I where the third actor might emerge as the net gainer in the system, it would still want to keep early war termination as an option at least at the beginning of war to see how much willingness the Soviets have to negotiate.

3. Escalation Control

Escalation control to avoid intensification would be easier to achieve in this tripolar system. At each level of intensity of the combat the United States and China should be able to keep the favorable asymmetry of capabilities against the Soviet Union so that they could deter the Soviets from further aggression.

This is because, first of all, at each stage of escalation the Soviet Union would have to cope with two opponents, not just one. This would put an extra burden on the Soviet Union. It would have to keep up with nuclear attack by both the United States and China, and most likely with enormous conventional attack by China. Thus the United States and China would have an advantage in a quantitative sense.

Secondly, in this scenario the United States could count on China's capability to respond appropriately to the Soviet attack, in case the United States receives a

fatal attack and becomes unable to keep up with flexible response. In the bipolar system, for example, destruction of most United States land-based ICBMs would severely limit its capability to respond to a Soviet attack in a limited way; in such a situation the United States might be forced to retaliate in a massive way and escalate war quickly, employing remaining weapons which are less accurate and whose targets cannot be changed promptly. In the tripolar system the United States could count on China to play a fail-safe role, compensating for the United States's disability. Hence the probability would increase that the United States, with China's assistance, could seek not to escalate war.

Thirdly, China's sheer number of population and the way it spreads in the nation is a definite advantage for escalation control; as investigated in the first scenario China would likely to be able to absorb more damage of war than the United States or the Soviet Union. The United States, having China as its ally, would find this tripolar system provides a favorable environment for preventing the Soviet Union from intensifying war. This is because the side which has more capacity to bear damage or which fears eruption the least, will automatically have an advantage at each level of escalation and thus is able to deter the further attack by the opponent.⁴⁴

Hence it would be easier for the United States together with China to pursue escalation control in this tripolar system. This system would be particularly effective in deterring the Soviet Union from escalating the war from the conventional level to the nuclear one. Compared to the bipolar system, the United States, with China's contribution of its huge conventional power, would be able to perform better in a pre-nuclear combat with the Soviet Union. Having a dominance at conventional level war, the United States and China would more likely succeed in getting the Soviet Union to negotiate at an early stage of war.

4. Damage Limitation

Damage limitation would have the same degree of importance as in the bipolar system. Since this international system would make the United States think that victory in war is more attainable, the United States might have more incentives to increase its nuclear war-fighting capability and also to increase its defense measures to better equip itself to cope with warfare. In the bipolar system it is often argued that it is meaningless to spend limited resources on passive defense measures since once deterrence fails the likely result is mutual destruction. In a tripolar system

marked by United States-China alliance, the result of war would not have to be a total destruction of both societies. The United States would be more likely to survive the war and be able to regain its full political and economic strength. In such a circumstance measures to eliminate damage of war to a minimum degree would have a realistic meaning. The improvement of currently insufficient civil defense measures should be also seriously considered in this scenario.

C. Arms Control

In this tripolar system the United States and China would enjoy a very favorable nuclear balance with respect to the Soviet Union; probably more than enough to deter the Soviet attack. Therefore, it would be the United States's and China's interest to reduce their arsenals somewhat to ease their military burden. While engaged in the arms control talks the allies should be cautious about to what extent they could reduce their weapons while keeping a enough deterrence capability against the Soviet Union.

However, since the Soviet Union would unavoidably perceive the Sino-American alliance's military power a serious threat, the most important objective in the arms control in this scenario for the United States and China would be to enhance crisis stability.

The United States should be careful to seek a coordinated attitude with China toward arms control. Difference and disagreements between the two nations should be discussed and solved prior to any talks with the Soviet Union.

In this scenario each nation would seek to protect a particular force structure and relative level of weaponry. The United States would have no need to increase its arsenals, but could rather reduce them. It would maintain its current balanced force structure among ICBMs, SLBMs, and bombers. The Soviet Union would try to increase its arsenals as much as possible without triggering a major Sino-American reaction. It would want a larger number of medium-range ballistic missiles (MRBMs) and intermediate-range ballistic missiles (IRBMs) to cope with the Chinese counterparts which would be installed along the border. To strengthen its second strike capability, it would also deploy more bombers. China's nuclear arsenals would probably consist of numerous MRBMs and IRBMs and a few long-range missiles to reach Moscow and Leningrad. Unlike in the first scenario China does not have to worry about deterring the United States so it would not need as many long-range missiles. It would, however, maintain the balanced structure of land-based and submarine-based missiles.

1. Deterrence

Since this particular tripolar system would further deter the Soviet attack, the biggest priority in arms control would likely be enhancement of crisis stability. Hence, measures to stabilize deterrence would be subordinated when there exists a conflict between achievement of deterrence and of crisis stability. However, measures which would enhance deterrence and crisis stability at the same time, such as making vulnerable ICBMs more mobile and small, should be pursued at the negotiation table.

2. Crisis Stability

In this tripolar system the United States might actually find it has to sacrifice arms control for the sake of crisis stability. To enhance crisis stability the United States needs weapons which are less vulnerable, inaccurate, slow⁴⁵, and targeted at Soviet cities rather than forces.

Less vulnerable weapons would convince the Soviets that they could not destroy the United States nuclear forces by their first strike, and they would also enhance deterrence. Inaccurate and slow weapons would not be able to succeed in destroying the Soviet retaliatory forces seriously; inaccurate weapons would

unlikely strike all the targeted Soviet forces and slow weapons would give the Soviets enough warning time to counter-act the attack. Hence weapons with these characteristics would reduce the Soviet fear of an alliance's attack depriving the Soviet Union of the retaliatory capability.

Unfortunately, however, these missiles would be incompatible with deterrence enhancement. Slow and inaccurate missiles would unavoidably decrease the credibility of United States successful second strike capability. The same thing can be said about the altering the targets. Changing targets from the Soviet military forces to, for instance, economic or industrial sectors, would reduce an American retaliatory threat. Considering the fact that this tripolar system encourages deterrence and discourages crisis stability, I think the United States should accept some trade-offs at the negotiation table which might eliminate deterrence effect to some extent, by employing weapons with above characters and by switching the targets.

It is also important to deploy many small missiles on the ground rather than a few large ones; numerous small missiles would be unattractive targets for the Soviet Union, therefore, discourage the Soviet first strike in a crisis. To deploy many small missiles which

have these characteristics, rather than a few big ones would serve the United States's objective to achieve crisis stability. However, those missiles are difficult to verify, therefore making arms control more difficult.

The United States should not seek to deploy missiles such as the MX, which have great accuracy, since their dangers outweigh their merit in this tripolar system. These missiles would make the Soviets believe that the United States regards a first strike as militarily advantageous to itself, and therefore, would push the Soviet toward a pre-emptive strike in a crisis.

On the other hand deployment of cruise missiles would be compatible with increasing crisis stability, because they take relatively long time to reach their targets. The problem with these missiles is that they are difficult to verify. They are relatively small and moreover, it is hard to tell if they are nuclear-armed or conventionally armed.

Considering the significance of ensuring crisis stability, I assume that it is more beneficial for the United States to deploy these weapons even if it cannot come up with a formal arms treaty with the Soviet Union due to the verification difficulties associated with these weapons.

CHAPTER IV

SCENARIO III: SINO-SOVIET ALLIANCE

In this section I will investigate the implication of tripolarity when the Soviet Union and China form an alliance; a threatening scenario for the United States. I assume a formal security alliance between the Soviet Union and China by a written treaty in which China is a steady ally of the Soviet Union. The United States has to face opponents having together nuclear arsenals twice as large as its own.

A. Deterrence

This scenario is roughly a mirror image of the last. The alliance could deter a United States attack easily, but the United States would find it difficult to deter an alliance attack. Yet the United States could still deter if it were able to maintain a credible second strike capability against the combined forces of the alliance.

1. Basic Deterrence

In this version of the tripolar system, the credibility of United States will to retaliate against the Soviet attack would be more questionable than in the

bipolar system. However, that would not be enough for the Soviet Union and China to attack the United States.

Even in this scenario where the Soviet Union and China would have a definite quantitative military advantage over the United States, they would still be hesitant to attack the United States first. First of all, just like the United State and/or China could not deprive the Soviet Union of its second strike capability in the second scenario, even in a successful Soviet and/or Chinese first attack, the United States would be most likely to maintain enough nuclear capability to inflict unacceptable damage to both nations in this scenario.

An unacceptable damage for the Soviet Union is estimated to be 20 to 25 percent of population loss and 50 to 65 percent of industry destruction, which would require the nuclear destructive power of 400 megaton equivalent, or probably less, considering the higher concentration of population and industry in the Soviet society.⁴⁶ As I examined in the second scenario, an unacceptable damage for China would probably be more than 25 percent of population loss and around 50 percent of industrial damage. This would require 600 to 800 megaton equivalent weapons. In total, therefore, 1,000 to 1,200 megaton equivalent destructive power would be

necessary for the United States to inflict unacceptable damage to both the Soviet Union and China.

At present the average yield of United States's nuclear warheads is 0.4 equivalent megatonnage.⁴⁷ If the United States continues to sustain this level of destructive power per warhead, it would need 2,500 to 3,000 warheads to yield 1,000 to 1,200 equivalent megatonnage. As for launchers, one United States launcher carries seven warheads in average in the status quo (two for ICBMs, ten for SLBMs, and 15.5 for bombers).⁴⁸ Hence the United States would need to possess 360 to 430 launchers to carry 2,500 to 3,000 warheads in order to yield 1,000 to 1,200 equivalent megatonnage.

Even in a successful first strike by the alliance, the United States appears able to maintain enough nuclear capability to inflict unacceptable damage to each adversary. The United States Arms Control and Disarmament Agency assumes that a successful Soviet first attack on the United States would mean destruction of 70 percent of ICBMs, 40-50 percent of SLBMs, and 70 percent of bombers.⁴⁹ Even if the attack is joined by China, this figure would not change very much; it is impossible for the alliance to destroy all the United States's forces, since certain numbers of submarines are

at sea and a certain portion of the bombers in the air at all times. Finally as long as nuclear weapons do not achieve 100 percent accuracy, it is impossible to destroy all of the even easily targeted forces such as land-based ICBMs, submarines in ports, or nonalert bombers.

Currently the United States has approximately 5,000 megaton equivalent nuclear weapons in about 13,800 warheads and 1,960 launchers.⁵⁰ In this tripolar scenario, I would suppose that the United States would increase its military budget and deploy more nuclear weapons; at present the United States enjoys a GNP which is approximately twice that of the Soviet Union and eight times that of China. Even with the Soviet Union and China combined, the United States still possesses 1.65 times more GNP.⁵¹ Yet its ratio of GNP allocated to the military spending is only one third of that of the Soviet Union.⁵² It is hard to imagine the United States would maintain this modest military spending against a Sino-Soviet alliance. However, even if the United States would only maintained 5,000 megaton equivalent arsenals, it would still be able to maintain the second strike capability to bring unacceptable damages to both the Soviet Union and China. In case of the successful first strike by the Soviet Union and/or

China, the remaining 30 percent of ICBMs (300 launchers and 678 warheads), 50 percent of SLBMs (320 launchers and 3,330 warheads), and 30 percent of bombers (95 bombers and 1490 warheads) would yield about 2,200 megaton equivalent power,⁵³ which exceeds the 1,200 megaton equivalent required to impose unacceptable damage on the alliance. Therefore, in terms of capability, the United States would be credible enough to deter the alliance's attack.

More problematic would be the credibility of United States will to retaliate. Suppose the United States receives a nuclear attack from the alliance after some conflict takes place. In this tripolar scenario, there would be no chance for the United States to emerge as a winner, enjoying a relative victory after nuclear war, and it would have a stronger interest not to escalate the war than in the bipolar system.

With this apparently decreased desire to escalate war, the United States's will to retaliate would appear less credible to the Soviet Union and China. The United States might actually choose to negotiate rather than retaliate and escalate war, inviting a second round of nuclear bombardment from the alliance. However, it is hard to say which option the United States would choose against the alliance's first strike. If the United

States decides that the alliance also desires to avoid unacceptable damage, it would resort to a limited retaliation to show its will to fight in hopes that the allies would agree to negotiate rather than intensify the war.

To sum up, a tripolar system marked by a Sino-Soviet alliance would provide less favorable environment for the United States to achieve basic deterrence than the bipolar system. However, the situation is not entirely hopeless. First, the United States would retain at least 2,200 megaton equivalent weapons after the successful alliance's first strike which would be able to inflict unacceptable damage to both nations. This capability would be a threat to the Soviet Union and China, and would force them to behave cautiously. They cannot make the United States defenseless by their first strike to the degree that it cannot bring the second strike capability to them. Second, although the United States's credibility of will to retaliate would decrease, the alliance could never be certain that the United States would not retaliate. This uncertainty of will combined with the clear second strike capability would pose the Soviet Union and China. Therefore, I assume that even in this scenario the Soviet Union and China would choose to coexist with

the United States rather than take major risks by launching a nuclear first strike.

2. Extended Deterrence

Extended deterrence against either a nuclear or conventional attack by the alliance would also diminish in a tripolar system featuring a Sino-Soviet alliance. If the Soviet Union succeeds in destroying a United States ally, it would be a direct gain for the Sino-Soviet camp, weakening the United States power. In the following I will examine the cases of deterring nuclear and conventional attack separately.

For extended deterrence against the alliance's nuclear attack, credibility of United States will to retaliate matters most. The Soviet Union and China would likely think that the United States would be more reluctant to retaliate after Europe or Japan is attacked, exposing its own homeland to counter-retaliation from both nations, and escalating war. The United States would be more fearful of escalating war in this scenario than in the bipolar system, because it has no chance of being a relative victor at any level of war escalation.

After a nuclear attack on Western Europe or Japan the United States has to consider that retaliation

against the Soviet Union or China would be followed by a counter-retaliation from the alliance, most likely concentrated on cities and industrial areas. Such an escalation of war would surely bring further damage to the United States, and worst of all, even if the United States bears the damage, it could not expect ultimate victory. Therefore, as long as the damage is limited to the European continent or to Japan, the United States would be more inclined to negotiate with the Sino-Soviet alliance from even an inferior position, rather than retaliate. This decreased credibility of the American will to retaliate would likely tempt the alliance to attack American allies.

An even more disturbing result of this international system for the United States would be the erosion of extended deterrence against the Sino-Soviet alliance's conventional attack. Here, the problem would be the United States's and its ally's capability rather than will. At present the Warsaw Pact enjoys a wide margin of relative advantage in conventional forces over NATO. For instance, the Warsaw Pact has twice as many divisions as NATO, and it possesses 68,300 main battle tanks which are also twice as many as NATO does. Japan's military forces are much more limited than NATO's.²⁴ Combined together, the Soviet Union and

China would create the most formidable conventional military power in the world. Adding China's huge conventional power to the Soviet side of the present unfavorable balance of conventional forces would be a significant threat to the security of American allies.

Even today the United States's and its ally's conventional military forces are criticized as inadequate to deter the Soviet conventional attack with high credibility. Albert Carnesale, Joseph S. Nye, Jr., and Graham T. Allison argue:

By choosing to rely on early nuclear use, the United States and its European and Japanese allies have opted for defense "on the cheap." Current political preferences make an early reversal of this policy unlikely, but it is not unaffordable. The Soviet Union enjoys no economic advantage over the United States. Quite the reverse: the U.S. gross national product (GNP) is roughly twice that of the Soviet Union. Moreover, the United States and its allies enjoy a combined GNP more than four times that of the Soviet Union and its allies.⁵⁵

Improving the United States's and its ally's conventional forces would be the top priority for enhancing extended deterrence in this tripolar system. This is even more important than in the bipolar system, since this system provides greater temptation for a Sino-Soviet conventional attack against the American allies. The alliance could achieve the victory in

Europe or in Japan more easily than the Soviets could in the bipolar system.

3. Crisis Stability

In this particular scenario, the United States does not have to worry about the alliance's fear of an American first strike since such an act would be highly irrational. Rather, the alliance would have to consider whether the United States might be driven to launch a pre-emptive strike against the alliance. Hence it would be the allies' responsibility to reduce United States fear of their first strike as long as it wants to maintain deterrence.

Although the United States would not carry the main burden of enhancing crisis stability in this tripolar system, it could still contribute to enhancing stability. The United States could, for example, make efforts to extend its warning systems to avoid accident due to false alarms. It could also avoid putting its forces in high-alert position or upgrade its safety devices so that the first strike would not be triggered easily. Albert Carnesale, Joseph S. Nye, Jr., and Graham T. Allison state:

Of particular concern is the absence of PALs
(permissive action links) on the nuclear warheads

on submarine-launched ballistic missiles, enabling launch of these weapons even in the absence of an express order from the president or his authorized successor.⁵⁶

Such improvements would aid the United States to enhance crisis stability and make nuclear war less likely.

B. War Fighting

In this scenario the Sino-Soviet alliance has a clear advantage in war fighting over the United States. How the United States should make a war-fighting strategy depends on how the Soviet Union and China interpret the likely outcome of war.

As stated in the section of deterrence, the United States would probably be able to carry out second strikes inflicting unacceptable damage on both the Soviet Union and China. The Soviets would most likely suffer at least 50 to 60 million dead and loss of 50 to 65 percent of their industry.⁵⁷ If, however, the United States concentrates most of its forces on Soviet targets, the Soviet Union could suffer loss of 100 million population loss and 70 percent of its industrial base.

This United States nuclear capability would encourage the Soviets to adopt a limited war strategy. It would engage in war in a cautious manner, trying to

prevent war from escalating further at every level of combat, and trying to negotiate with the United States before it suffers unacceptable damage. After all nuclear war is too costly even in this scenario where the Sino-Soviet alliance has a clear advantage in war fighting. Thus, the United States should prepare its war-fighting policy based on this assumption that the alliance would wish to avoid an all-out nuclear war in this tripolar system.

1. War Winning

In this tripolar system this policy goal would be unattainable. In the bipolar system there might be such a thing as a relative victory after the all-out war. In this tripolar system, however, there is definitely not a chance for the United States to emerge as victor. It is totally impossible for the United States to shatter both the Soviet Union and China without being shattered itself. Thus it is not sane for the United States to try to seek victory in this power distribution. The United States should elaborate strategy to achieve other war-fighting goals.

2. War Termination

This would become an important goal for the United States. The task for the United States in this power

system would be to terminate war as soon as possible with an acceptable negotiation; war termination would be meaningless, if the negotiation imposes the United States's disintegration, for instance. As long as the alliance dreads going to all-out war and it sees that the United States is ready to engage in such a warfare if the content of negotiation offer is unacceptable, there should be some opportunity to terminate war with both sides' concession after some level of intensity ladder.

To leave the opportunity to cease fighting at some point of warfare through clear negotiation, first of all, it is important for the United States to protect its communication links with the Soviet Union and China. The currently vulnerable "hot line" between the United States and the Soviet Union would have to be greatly improved in this tripolar system, and reliable communication links with China would have to be established. Otherwise there would be no chance for the leaders of three nations to stay in sufficient contact to negotiate an end to the war. It would also be in the United States's interest for the Soviet Union and China to have a reliable communication line between themselves. Otherwise it would be difficult for the

alliance to reach an agreement about when and under what stipulations to cease fire.

Next, current American plans for early attack on the Soviet C³I systems⁵⁸ should be altered. In the same way the United States should not attack the Chinese C³I systems, either. As stated in the first scenario, although communication disruption might limit the damage on the United States the damages it poses seem greater. Even if political leaders succeed in negotiating to terminate war, communication disruption might make it impossible for them to circulate cease-fire orders to the various military units. Since the United States would have a greater interest in terminating war in this tripolar system than in the bipolar system, it should not attack its opponents' C³I systems. It should also avoid strategies based on attacking either ally's leadership as most American strategists agree in the bipolar system.⁵⁹

At the same time the United States should make greater efforts to improve its own communication and information systems, which are now highly vulnerable to even a limited nuclear attack. Since the Soviet Union and China would have no more interest in negotiating with the United States in this scenario than in the bipolar system, the American C³I system would be a

target. Hence the United States should take the same measures to strengthen its C³I systems and protect political leaders in this scenario as it would in the bipolar system.

3. Escalation Control

It would be almost impossible for the United States to keep the Sino-Soviet alliance from escalating war, because at every level the alliance would be able to maintain a favorable asymmetry of capabilities. In this scenario the United States would have to fight a two-front war, inflicting an appropriate level of damage to both nations at an appropriate time. This burden would ensure less satisfactory performance of the United States in escalation control strategy than in any other scenarios.

Although the Sino-Soviet alliance would have the ultimate advantage in war-fighting, they would not want war to escalate to the extent they suffer "unacceptable damage." They would accept great damage if the existence of their nations were at stake. However, they would not likely be willing to bear as much suffering for anything less. Even reducing the United States to a second rank power would not be sufficient compensation for suffering the unacceptable damage defined earlier.

Therefore, the alliance would likely try to prevent war from intensifying at each escalation level, and try to seek negotiation with the United States in this scenario. The best the United States could do in this situation would be to fight enough at any given level of escalation so that it could induce as favorable peace terms as possible from the alliance.

4. Damage Limitation

The United States would have to make greater efforts to limit damage in this tripolar system. The damage which would be imposed by the opponents would be more severe in this scenario, since the United States would be fighting against two nuclear powers, not only one as in the bipolar system. The United States should seek to develop its currently insufficient civil defense programs, such as the urban evacuation plan, for damage limitation as discussed in other two scenarios.

C. Arms Control

In this scenario the United States should seek to narrow the nuclear gap between the alliance and itself. It should also urge its European allies and Japan to build up their arsenals. Unlike the Soviet Union or Warsaw Pact, the United States, European allies, and

Japan should be able to afford to build up their nuclear arsenals to cope with this threatening scenario.

Even if the United States could not achieve a near parity with Sino-Soviet alliance, it should vigorously seek to maintain a credible second strike capability so that deterrence would not fail. To enhance deterrence would be the most important objective for the United States in this scenario. At the same time the United States should try to convince the Sino-Soviet alliance that it should reduce some of its arsenal to enhance the crisis stability for their own sake.

In this scenario the three nations would also have distinctive preferences. The United States would want to increase its overall nuclear arsenal. It would particularly try to increase the number of SLBMs and mobile ICBMs to strengthen its second strike capability. The Soviet Union would maintain its current arsenal or might even reduce it, since it would not have to worry about Chinese intentions. Unlike in the other scenarios or in bipolar system, it could abandon those IRBMs and MRBMs directed at Chinese targets. Its balance between among ICBMs, SLBMs and bombers would likely remain the same. The Chinese arsenal would mostly consist of long-range missiles to reach the United States and Europe. This is because it would not

have to worry about deterring a Soviet attack as in the first or second scenario. Its possession of ice-free harbors along the Pacific allows it to have a balanced force structure between ICBMs and SLBMs like the United States. Its current reluctance to develop bombers means that China would split its forces among ICBMs and SLBMs only. It appears unlikely to develop a "triad" like the Soviets or American possess.

1. Deterrence

To have enough double second strike capability against both the Soviet Union and China the United States would have to sustain at least around 1,200 megaton equivalent power. In the arms control in this scenario it would be the United States's vital interest to maintain weapons which could yield this much destructive power to keep deterrence.

The United States should demand that the alliance reduce the number of Soviet and Chinese missiles with high accuracy. Such Soviet missiles at present could destroy 85-90 percent of American land-based missiles in theory.⁶⁰ In this scenario China would most likely possess missiles with same degree of accuracy. Although land-based missiles are not the only weapons the United States would retain, enhancing deterrence in this

tripolar system requires that even the threat against this leg of American triad be reduced. Reduction of those accurate weapons would also enhance crisis stability, mitigating the fear of the United States that the alliance counter-force attack would deprive it of nuclear capability. Hence it would be possible that the alliance compromises and forgo some of their accurate missiles as long as they are interested in crisis stability.

The United States would have to face the alliance at the negotiation from a weak position in terms of its arsenal's quantitative features. To extract favorable concessions from the alliance to strengthen deterrence such as the reduction of their number of weapons, it would be very important for the United States to maintain its current edge in weapons technology. So long as the United States has qualitative advantages which the alliance regards as important and unduplicable in a near future, it could use them as bargaining chips in return for alliance force reductions or rearrangements.

2. Crisis Stability

The United States ability to strengthen crisis stability through arms control would be limited in this scenario. It would be mainly the alliance's burden to

convince the United States that they are not seeking to deprive it of its second strike capability.

As has been seen, even in this scenario the Soviet Union and China would likely regard nuclear war as costly and would prefer to peacefully coexist with the United States. Hence they would probably have a considerable interest in enhancing crisis stability through negotiations. The United States would also wish to ensure that the alliance does not have an incentive to attack first in a crisis. These parallel interests should lead the alliance and the United States to mutually satisfactory agreements in strengthening crisis stability. As noted in the preceding discussion of deterrence, it would be possible for the United States to persuade the alliance to reduce the number of their accurate missiles for crisis stability, or to replace some of their missiles with short flight times with slow missiles. These measures would not only enhance crisis stability but also enhance the United States deterrence. Other measures both the United States and the alliance could easily agree on would be keeping submarines in enough distance from the opponent's coasts, or avoiding keeping bombers in high alert position so that they could raise the nuclear threshold.

CHAPTER V

CONCLUSION

After examining the implication of China's attaining superpower status in each scenario, it is clear that the question of whether a tripolar nuclear system would be more stable than the current bipolar nuclear system depends largely on the nature of alignments among the three great powers.

A tripolar system in which two of the superpowers are aligned against the third is more unstable than the bipolar system. The two-power side immediately topples the balance of power in the system, increasing its power relative to the third superpower. This gives the alliance more incentives to attack the relatively weaker side. At the same time the system increases the possibility that the underdog pre-empts out of the fear that the opponents are undertaking to attack it.

On the other hand, presence of a nonaligned third nuclear superpower creates a system more stable than the bipolar system. This is because the two original superpowers develop a common interest despite the basic antagonism. They want to avoid a major fight between themselves so that the third superpower would not be an automatic gainer in the system over the two crippled

superpowers after the fight. Thus the two original superpowers would act in a more cautious way, taking into account the presence of the third superpower.

Mandelbaum states in his The Nuclear Revolution:

The emergence of another major nuclear power could be seriously unsettling. ...Of all the possible multipolar systems, moreover, one involving three major powers might well be the most perilous, because the change of allegiance of any one of the principals would always be decisive, as is not the case in a multipolar system.⁶¹

It is clear that Mandelbaum presupposes in the above argument that the third major power is a fairly unstable ally or at least it is not a solid independent power in the system. He is absolutely correct to argue that the tripolar system is unstable as long as the third superpower frequently shifts its allegiance or joins another superpower as a permanent ally. This argument is not, however, inclusive, since it disregards the possibility of the third nuclear superpower being a stable nonaligned nation.

Nuclear proliferation has been criticized as destabilizing the international system. It would be dangerous if a dozen of small- or medium-size nations become nuclear powers, especially if they were politically unstable, lacked second strike capability or

had unsophisticated control systems. Though emergence of a stable, nonaligned third nuclear power having second strike capability will have an advantageous effect for international peace, the same condition is less likely to be attained in a world of four or more such superpowers. The temptation to form and re-form alliance would be far greater.

Besides, a multipolar nuclear system is not attainable in the foreseeable future. There are few states in the current international system that could become full nuclear superpowers. To do so, a state has to possess necessary resources and technology to produce second strike nuclear capability, and sophisticated command and control systems to ensure against accident. More importantly, the nation has to possess large territory and population so that it could not be shattered by a single first nuclear strike. This requirement eliminates many of the nations which meet the first requirement, such as most of the nations in Europe. China is one of the few nations which would likely satisfy all the necessary conditions in the future. The most promising candidates after China are India and Brazil. Yet they appear to be further from attainment of superpower status than China.

For now, therefore, if any change takes place in the current bipolar system at all, it would be a transformation to a tripolar system with China as the third nuclear superpower. Considering this probability, it is not a bad thing for the United States or for the Soviet Union that China would likely stay as a nonaligned power in the future. Chinese nonalignment would create the most stable system among other tripolar scenarios investigated in this thesis and a more stable system than the current bipolar one as well.

NOTES

¹ For the current United States nuclear policy against the Soviet Union, see Raymond Aron, Peace and War: A Theory of International Relations, trans. Richard Howard, and Annette Baker (Garden City, New York: Doubleday & Company, INC., 1966); Desmond Ball, "Soviet Strategic Planning and the Control of Nuclear War," The Soviet Calculus of Nuclear War, ed. Roman Kolkowicz and Ellen Proper Mickiewicz (Lexington, Massachusetts/Toronto: D.C. Heath and Company, 1986), pp. 49-67; Bernard Brodie, Strategy in the Missile Age (Princeton, New Jersey: Princeton University Press, 1959); Fritz W. Ermarth, "Contrasts in American and Soviet Strategic Thought," International Security, Vol. 3, No. 2 (Fall 1978), 138-155; Timothy Garden, Can Deterrence Last?: Peace Through a Nuclear Strategy. The Royal United Services Institute for Defence Studies, The Military Power Series (London: Buchan & Enright, Publishers, 1984); Colin S. Gray, "Nuclear Strategy: The Case for a Theory of Victory," International Security, Vol. 4, No. 1 (Summer 1979), 54-87; The Harvard Nuclear Study Group, Living with Nuclear Weapons (New York and Toronto: Bantam Books, 1983); Spurgeon M. Keeny, Jr., and Wolfgang K. H. Panofsky, "MAD versus NUTS," The Global Agenda: Issues and Perspective, ed. Charles W. Kegley, Jr. and Eugene R. Wittkopf (New York: Random House, 1984), pp. 71-74; Solly Zuckerman, Nuclear Illusion and Reality (New York: Viking, 1982).

² See Michel Mandelbaum, The Nuclear Revolution: International Politics before and after Hiroshima (Cambridge: Cambridge University Press, 1981), p. 83. He identifies Japan, a unified Western Europe, and China as three possible candidates for the status of great nuclear power. After arguing that the first two candidates are not likely going to be the nuclear superpower, he states, "[T]he People's Republic of China, by contrast, has the necessary political unity..... It even has the bomb. Ultimately, perhaps, China will make the international system tripolar."

³ Aron, p. 414.

⁴ Aron, p. 428.

⁵ Joseph S. Nye, Jr., Graham T. Allison, and Albert Carnesale, "Analytic Conclusions: Hawks, Doves, and Owls," Hawks, Doves, and Owls: An Agenda for

Avoiding Nuclear War, ed. Graham T. Allison, Albert Carnesale, and Joseph S. Nye, Jr. (New York: W. W. Norton & Company, 1985), p. 219.

⁶ See Banning N. Garrett and Bonnie S. Glaser, War and Peace: The Views from Moscow and Beijing. Policy Papers in International Affairs, Number 20 (Berkeley, California: University of California, 1984), pp. 28-29.

⁷ Henry Rowen, "Catalytic Nuclear War," Hawks, Doves, and Owls, p. 150.

⁸ Henry Rowen, "Catalytic Nuclear War," Hawks, Doves, and Owls, p. 151.

⁹ Gray, p. 61.

¹⁰ See Garden, p. 98, and Desmond Ball, "Can Nuclear War Be Controlled?," Adelphi Papers, 169 (London: International Institute for Strategic Studies, 1981), 22.

¹¹ Testimony of William J. Perry, Under Secretary of Defense for Research and Engineering, before the U.S. Senate Committee on Armed Services, Hearing: Department of Defense Authorization for Appropriations, Fiscal Year 1981, Part 5: Research and Development. 96th Congress, 2d session, March 1980, p. 2721.

¹² The Harvard Nuclear Study Group, p. 150.

¹³ Desmond Ball, "Soviet Strategic Planning and the Control of Nuclear War," The Soviet Calculus of Nuclear War, p. 50.

¹⁴ Desmond Ball, "Soviet Strategic Planning and the Control of Nuclear War," The Soviet Calculus of Nuclear War, p. 58.

¹⁵ Testimony of Dr William Perry, Under Secretary of Defense for Research and Engineering, in Hearings before the Senate Armed Services Committee, Department of Defense Authorization for Appropriations for Fiscal Year 1980. Part 3, March-May 1979, p. 1437, qtd. in Ball, "Can Nuclear War Be Controlled?," Adelphi Papers, 169, 1.

¹⁶ Richard Nixon, National Security Decision Memorandum (NSDM) 242, January 17, 1974, cited by Jack Anderson, "Not-So-New Nuclear Strategy," Washington Post, October 12, 1980, p. C-7, qtd. in Ball, "Soviet Strategic Planning and Control of Nuclear War," The Soviet Calculus of Nuclear War, p. 50.

¹⁷ Aron, p. 421.

¹⁸ Judging from the current reluctance toward civil defense programs, it will be difficult for the United States to develop these measures actively.

¹⁹ For the current Chinese nuclear doctrine, see Garrett and Glaser.

²⁰ Robert G. Sutter, "Developments in China's Nuclear Weapons and Attitudes toward Arms Control," China's Military Reforms: International and Domestic Implications, ed. Charles D. Lovejoy, Jr. and Bruce W. Watson (Boulder and London: Westview Press, Inc., 1986), pp. 103-105.

²¹ For the current Soviet force structure see The Military Balance, 1987-1988 (International Institute for Strategic Studies, 1987), p. 225.

²² Secretary of Defense, Robert McNamara's assumption, qtd. in Arthur M. Kartz, Life after Nuclear War: The Economic and Social Impacts of Nuclear Attacks on the United States (Cambridge, Massachusetts: Ballinger Publishing Company, 1982), p. 316. Although this is an assumption made in 1960s both Kartz and the Harvard Nuclear Study Group rely on this data in their books which were published in 1980s. Therefore I assume it is safe to quote this assumption in my thesis.

²³ Joseph S. Nye, Jr., "Restarting Arms Control," Foreign Policy, No. 47 (Summer 1982), 109.

²⁴ John Greenwald, "The Big Shake-Up," Time, 8 August 1988, pp. 20-22.

²⁵ Katz, pp. 102-103, 316.

²⁶ For example, see Garrett and Glaser, p. 28.

²⁷ The Military Balance, 1987-88, p. 14, 145.

²⁸ Teikokushoinhenshubu, Shinshokotochizu, 1981 (Tokyo, Japan: Teikoku Shoin, 1981), p. 106.

²⁹ The Military Balance, 1987-88, and the Harvard Nuclear Study Group, p. 120.

³⁰ The Military Balance, 1987-88, pp. 205-207, 225.

³¹ Calculated from data in The Military Balance, 1987-1988, pp. 205-207.

³² Garrett and Glaser, p. 12.

³³ Secretary of Defense Robert McNamara's assumption, qtd. in Katz, p. 316.

³⁴ See Fen Osler Hampson, "Escalation in Europe," Hawks, Doves, and Owls, pp. 80-114 and the Harvard Nuclear Study Group.

³⁵ The Military Balance, 1987-88, p. 33, 14.

³⁶ The Military Balance, 1987-88, p. 145.

³⁷ Greenwald, p. 20.

³⁸ The Harvard Nuclear Study Group, p. 141 and Albert Carnesale, Joseph S. Nye, Jr., and Graham T. Allison, "An Agenda for Action," Hawks, Doves, and Owls, p. 228.

³⁹ Albert Carnesale, Joseph S. Nye, Jr., and Graham T. Allison, "An Agenda for Action," Hawks, Doves, and Owls, p. 231.

⁴⁰ See Colin S. Gray and Keith Payne, "Victory is Possible", Foreign Policy, No. 39 (Summer 1980), 21, and Gray, pp. 67-69.

⁴¹ Gray, p. 67.

⁴² One recent report on the discontent in the Soviet Baltic republics, Lithuania, Latvia, and Estonia, is Frederick Pajnton, "Young and Restless," Time, 5 Sep. 1988, p. 30.

⁴³ Gray, p. 68.

⁴⁴ Herman Kahn, On Escalation: Metaphors and Scenarios (New York: Paeger, 1965), qtd. in Lawrence Freedman, The Evolution of Nuclear Strategy (London: The Macmillan Press Ltd, 1981), pp. 218-219.

⁴⁵ The Harvard Nuclear Study Group, p.143.

⁴⁶ Katz, pp. 315-318.

⁴⁷ Calculated from data in The Military Balance 1987-88, pp. 202-204. and in the Harvard Nuclear Study Group, p. 120.

⁴⁸ Calculated from data in The Military Balance 1987-88, p. 225.

⁴⁹ The United States Arms Control and Disarmament Agency Study, 1978, qtd. in Katz, p. 317.

⁵⁰ Calculated from data in The Military Balance 1987-88, pp. 202-204, and 225.

⁵¹ Calculated from data in The Military Balance 1987-88, p. 14, 33, and 145.

⁵² Greenwald, p. 20.

⁵³ Calculated from data in The Military Balance 1987-88, pp. 202-204, and 205.

⁵⁴ The Military Balance, 1987-88, p. 160, 231.

⁵⁵ Albert Carnesale, Joseph S. Nye, Jr., and Graham T. Allison, "An Agenda for Action," Hawks, Doves, and Owls, pp. 230-231.

⁵⁶ Albert Carnesale, Joseph S. Nye, Jr., and Graham T. Allison, "An Agenda for Action," Hawks, Doves, and Owls, pp. 233-234.

⁵⁷ Katz, p. 317.

⁵⁸ Perry testimony in U.S. senate, 1980.

⁵⁹ The Harvard Nuclear Study Group, p. 150.

⁶⁰ The Harvard Nuclear Study Group. p. 171.

⁶¹ Mandelbaum, p. 82.

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